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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/785,022	02/25/2004	Ayumu Morita		9031

7590 09/14/2005
MATTINGLY, STANGER & MALUR, P.C.
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EXAMINER

DONOVAN, LINCOLN D

ART UNIT PAPER NUMBER

2832

DATE MAILED: 09/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/785,022	Applicant(s) MORITA ET AL.	
	Examiner Lincoln Donovan	Art Unit 2832	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2,3 and 10 is/are pending in the application.
- 4a) Of the above claim(s) 10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 2 and 3 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>02-27-04</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Claim 10 is withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected claimed invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 07-06-05.

Information Disclosure Statement

The information disclosure statements filed 02-25-04 and 08-25-04 fail to comply with 37 CFR 1.98(a)(2), which requires a legible copy of each cited foreign patent document; each non-patent literature publication or that portion which caused it to be listed; and all other information or that portion which caused it to be listed. It has been placed in the application file, but the information referred to therein has not been considered.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2-3 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 2, in lines 5-6, applicant should clarify the structure, arrangement and mounting of the "nonmagnetic protrusion *is provided* to the stationary iron core." Applicant should clarify the arrangement intended by the core "surrounding" the plunger.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 2, as best understood in view of the rejections under USC 112, 2nd paragraph, is rejected under 35 U.S.C. 103(a) as being unpatentable over Uetsuhara et al., figure 18 [US 5,268,662] in view of Hoffman [US 5,546,063].

Uetsuhara et al., figure 18, disclose an electromagnet composed of:

- a coil [18];
- a movable core [14] adapted to move on the center axis of the coil having first and second end portions;
- a stationary magnetic core assembly [52/12/10] arranged to cover the upper and lower surface and the outer peripheral surfaces of the coil;
- a protruding portion on a side of the core assembly arranged to receive the movable core;
- a magnetic plate member [22] mounted on the first end portion of the core; and
- a permanent magnet [50] surrounding the movable core portion.

Uetsuhara et al., figure 18, disclose everything claimed except the specific material used to form the magnetic portions and the protruding portion being formed of a nonmagnetic material.

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Official notice is taken that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use iron or steel to form the core pieces and plate member in order to provide good magnetic properties.

Hoffman discloses a magnetic solenoid [figure 1] having a magnetic stationary core assembly [25, 61] with a nonmagnetic portion [34, column 2, lines 22-28] attached thereto.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the protruding portion of Uetsuhara et al., figure 18, be formed of a nonmagnetic material, as suggested by Hoffman, for the purpose of optimizing the magnetic flux provided by the coil.

Claim 2, as best understood in view of the rejections under USC 112, 2nd paragraph, is rejected under 35 U.S.C. 103(a) as being unpatentable over Uetsuhara et al., figure 18, as applied to claim 1 above, and further in view of Uetsuhara et al., figure 3.

Uetsuhara et al., figure 18, as modified, disclose everything claimed except the distance between the second end portion of the plunger and a stationary portion of the core being less than a distance between the protrusion and the plate.

Uetsuhara et al., figure 3, discloses a magnetic solenoid having the distance between a second end portion of the plunger and a stationary core portion [12] being less than a distance between a protrusion and the plate.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have the distance between the second end portion of the plunger

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and a stationary portion of the core being less than a distance between the protrusion and the plate in Uetsuhara et al., figure 18, as suggested by Uetsuhara et al., figure 3, in order to prevent chatter upon activation.

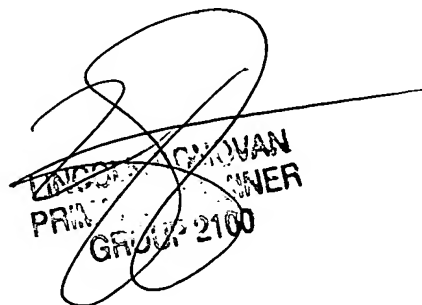
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lincoln Donovan whose telephone number is 571-272-1988. The examiner can normally be reached on M-F 8-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Enad Elvin can be reached on 571-272-1990. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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